

Know Your Watershed: Holmes Run • Tripps Run • Cameron Run

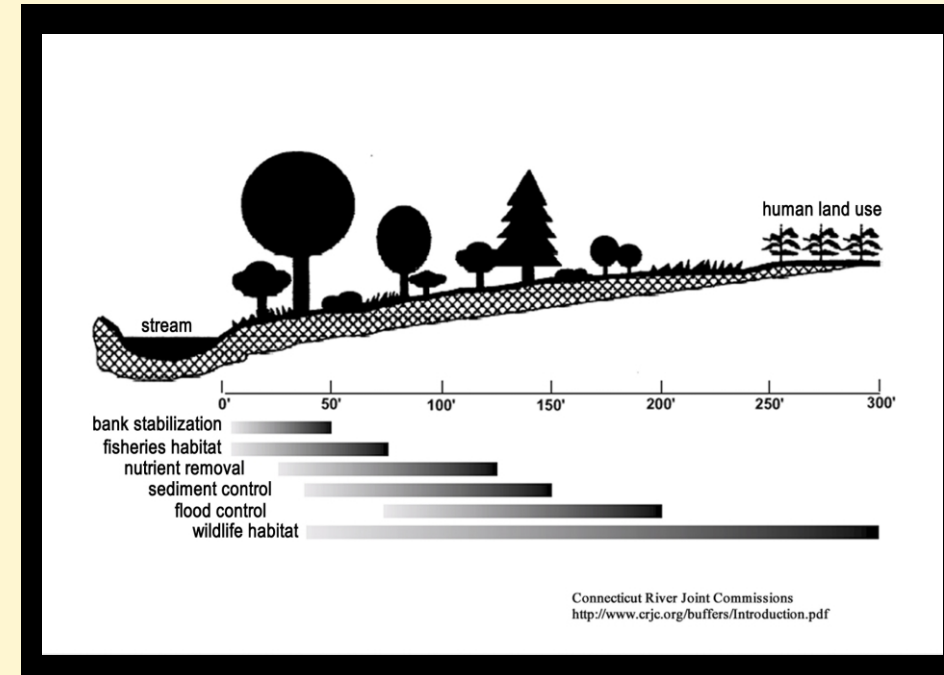
Watershed Management

Aquatic Buffers

Buffers ensure the natural functioning of floodplains, regulate light and temperature conditions, provide habitat for aquatic organisms, remove sediment, nutrients, and bacteria, and help to stabilize and protect stream banks. A 100-foot buffer is required in Chesapeake Bay resource protection areas.

Buffers

- Monitor buffers regularly for condition.
- Respect, protect or restore aquatic buffers that might exist on your property.



Actions That Reduce Impervious Surfaces

Zoning/Rezoning

- Clustering development.
- Cooperative parking or shared parking, multi-story parking structures or underground parking.
- Narrowing street widths or local roads.
- Discourage variances.

Retrofits to Existing Development

- Retrofit existing cul-de-sacs with rain gardens designed to hold stormwater.
- Retrofit with design techniques that capture runoff, such as a grassed swales.
- Landscape when possible with native vegetation.
- Use porous paving materials for driveways, parking lots.
- Conserve infill properties for BMPs.



Infiltration trench with concrete parking pavers in office park setting.
Virginia Stormwater Management Handbook. Downloaded from <http://www.dcr.state.va.us/sw/stormwat.htm>



Actions for Erosion & Sediment Control

Developers/Contractors

- Provide temporary BMPs.
- Stabilize exposed soils and drainage ways immediately following disturbance.

Regulations/Citizens

- Learn what the erosion and sediment control laws are, who enforces them, what their enforcement record has been, and if the laws are effective in protecting local waters.
- Organize together to recognize and report violations.



Sediment forebay constructed with earthen embankment and riprap overflow.
Virginia Stormwater Management Handbook. Downloaded from <http://www.dcr.state.va.us/sw/stormwat.htm>

Best Management Practices (BMPs)

Stormwater Best Management Practices (BMPs) are techniques used to delay, capture, store, treat, reduce, or infiltrate stormwater runoff. Five basic types of structural BMPs include: 1) ponds, 2) wetlands, 3) infiltration devices, 4) filtering systems, including bioretention (eg, rain gardens), and 5) open channels. Nonstructural BMPs include buffers and street sweeping.

Citizens can contribute by:

- Protect all natural wetland and open water areas.
- Maintain vegetated buffer strips and BMPs to improve infiltration of stormwater.
- Landscape with native plants.
- Gain a basic understanding of stormwater on your own property and ensure that it does not cause erosion or problems for your neighbors.



Bioretention area in office parking lot.



Grass swale through residential area. Note flat slope to encourage infiltration-ponding water gone within hours of runoff producing event.



Constructed Stormwater Wetland.



Landscaping - 'rough' shoreline edge and aquatic bench provides improved pollutant removal and shoreline stabilization.



Retention basin-Note flat slopes with 'rough' edge and aquatic bench provided as safety and pollutant removal features.
Virginia Stormwater Management Handbook. Downloaded from <http://www.dcr.state.va.us/sw/stormwat.htm>



Small unobtrusive check dam.



Wet regenerative street sweeper.



Floating debris boom trap.

Actions for Nonpoint Source Pollution

Citizens:

- Recycle used oil and antifreeze.
- Minimize the use of chemical pesticides, fertilizer, or herbicides (follow manufacturer's instructions).
- Dispose of litter properly; help keep street gutters and storm drains free of litter; don't throw leaves, yard debris or trash down storm drains.
- Clean up pet wastes and dispose of household garbage; don't allow pet wastes to be washed into storm drains.

Developers/Regulators:

- Establish a stormwater utility to maintain BMPs.
- Follow existing regulations governing stormwater and water quality control.